

Dynamic Current Limiting

Abstract

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A system and method for generating commands for current subject to dynamic determinations of a limit. In one embodiment, the dynamically determined limit is a function of power dissipation in a component estimated from a measured current level and as a function of a measured temperature proximate to the component. In another
10 embodiment, the limit is a lesser of two dynamically determined current levels. The system and method may be of particular use in a motor having limits determined with respect to a transistor and a motor winding. More particularly, estimated temperatures are established for a transistor and a motor winding for use in dynamically determining limits. Dynamic current limiting may be applied to a left and right wheeled vehicle such that the limit applied to both
15 wheels is the lower of the limits dynamically determined for each wheel.